

### Abstract of the Disclosure

When a plurality of IP packets to be relayed, which form a TCP connection, pass through a router device, converting units rewrite part of IP address information and port number information within the packets according to a predetermined rule in cooperation with a TCP connection management database. A stream linking unit extracts the information indicating the original connection destination of a TCP connection from the packets, and links two TCP connections with streams. Converting units rewrite part of the IP address information and the port number information within a plurality of packets to form a TCP connection with an original connection destination according to a predetermined rule in cooperation with the management database.